Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

LISTING OF CLAIMS:

1. (currently amended) A method for treating disorders associated with the activities of ~~modulating function of~~ a eukaryotic peptidyl transferase center comprising administering ~~a drug that affects the eukaryotic peptidyl transferase center~~ to a patient in need thereof a therapeutically effective amount of a drug which modulates programmed ribosomal frameshifting and/or nonsense-mediated mRNA decay.

2. (original) The method according to claim 1, wherein the drug is an antibiotic.

3. (original) The method according to claim 1, wherein the drug is a peptidyl transferase center inhibitor.

4. (original) The method according to claim 2, wherein the drug is selected from the group consisting of sparsomycin and anisomycin.

5. (original) A method for treating a viral infection comprising modulating a function of a eukayotic peptidyl transferase center according to the method of claim 1.

6. (original) A method for treating HIV infection comprising modulating the function of a eukaryotic peptidyl transferase center according to the method of claim 1.

7. (currently amended) A method for treating a disease ~~associated with~~ resulting from a nonsense mutation in a gene comprising modulating the function of a eukaryotic peptidyl

transferase center according to the method of claim 1.

8-31. (cancelled)

32. (new) The method according to claim 1, wherein the drug modulates the efficiency of -1 ribosomal frameshifting.

33. (new) The method according to claim 32, wherein the drug increases the efficiency of -1 ribosomal frameshifting.

34. (new) The method according to claim 32, wherein the drug decreases the efficiency of -1 ribosomal frameshifting.

35. (new) The method according to claim 1, wherein the drug suppresses a nonsense mutation.

36. (new) The method according to claim 1, wherein the drug stabilizes a nonsense transcript.

37. (new) The method according to claim 1, wherein the drug interacts with a protein encoded by a gene selected from the group consisting of *mof4-1*, *mof2-1*, *mof5-1* and human homologues thereof.

38. (new) The method according to claim 1, wherein the drug is polypeptide of a ribosome binding protein, L3.

39. (new) The method according to claim 1, wherein the drug is a vector comprising a gene encoding a protein involved in programmed ribosomal frameshifting and/or nonsense-mediated mRNA decay.

40. (new) The method according to claim 39, wherein the gene is selected from the group consisting of *mof4-1*, *mof2-1*, *mof5-1* and human homologues thereof.

41. (new) The method according to claim 39, wherein the vector is a viral or retroviral vector.

42. (new) The method according to claim 1, wherein the drug is an expression vector comprising a nucleic acid hybridizable *in vivo* with an mRNA encoding a protein involved in programmed ribosomal frameshifting and/or nonsense-mediated mRNA decay, wherein a mutation of a gene encoding the protein changes the efficiency of ribosomal frameshifting.

43. (new) The method according to claim 42, wherein the hybridizable nucleic acid is an antisense RNA specific for the mRNA, the antisense RNA being operatively associated with an expression control sequence.

44. (new) The method according to claim 5, wherein the drug inhibits viral propagation.

45. (new) The method according to claim 5, wherein the drug affects programmed ribosomal frameshifting in an RNA virus.

46. (new) The method according to claim 45, wherein the RNA virus is selected from the group consisting of retroviruses, astroviruses and totiviruses.

47. (new) The method according to claim 6, wherein the drug inhibits viral propagation.

48. (new) The method of claim 7, wherein the drug suppresses a nonsense mutation.

49. (new) The method of claim 7, wherein the drug stabilizes a nonsense transcript.

50. (new) The method of claim 7, wherein the disease is selected from the group consisting of nonspherocytic hemolytic anemia, β-thalassemia, hypercholesterolemia, pulmonary emphysema, adrenal hyperplasia, apolipoprotein C-II deficiency, hemophilia B, Bernard-Soulier syndrome, fructose intolerance, insulin resistance, maple syrup urine disease, thrombosis, goiter and hypothyroidism, chronic gradulomatous, Sandhoff disease, vonWillebrand disease type III, gyrate atrophy, 1,25-dihydroxyvitamine D3 resistant rickets, spherocytosis, cystic fibrosis and spherocytosis.

51. (new) A method for inhibiting the function of a eukaryotic peptidyl transferase center, the method comprising exposing cells to an effective amount of drug, under conditions for a sufficient time to change the efficiency of -1 ribosomal frameshifting and/or suppress a nonsense mutation.

52. (new) The method of claim 51, wherein the drug increases the efficiency of -1 ribosomal frameshifting.

53. (new) The method of claim 51, wherein the cells are infected with an RNA virus and the drug inhibits propagation of the RNA virus.

54. (new) The method of claim 51, wherein the cells contain a gene carrying the nonsense mutation, which results in a disease.

55. (new) The method of claim 54, wherein the disease is selected from the group consisting of nonspherocytic hemolytic anemia, β-thalassemia, hypercholesterolemia, pulmonary emphysema, adrenal hyperplasia, apolipoprotein C-II deficiency, hemophilia B, Bernard-Soulier syndrome, fructose intolerance, insulin resistance, maple syrup urine disease, thrombosis, goiter and hypothyroidism, chronic gradulomatous, Sandhoff disease, vonWillebrand disease type III, gyrate atrophy, 1,25-dihydroxyvitamine D3 resistant rickets, spherocytosis, cystic fibrosis and spherocytosis.

56. (new) The method of claim 51, wherein the drug stabilizes a nonsense transcript.